

REMARKS

Formal Matters

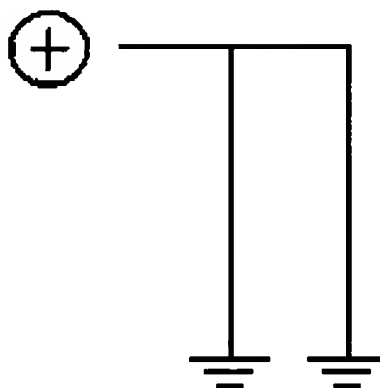
Claims 1-5, 8 and 10-12 and 23-42 are pending after entry of the amendments set forth herein. Claims 7 and 11 are cancelled without prejudice to their pursuit in a continuing application. New claims 41 and 42 are added; they are presented as re-written versions of claim 7 and 13 as indicated to be allowable. Note that these claims have been presented with alternate characterization of the parallel supply line arrangement as have claims 1, 10, 30 and 31. Support for the alternate characterization is clearly presented in ¶0019.

No new matter has been added by way of this Amendment.

“Parallel” Arrangement

Claims 1 and 10 and ¶0018 of the Specification were objected to in view of the Examiner’s assertion that manometer (8) is not connected in parallel with the print supply line (4). In so asserting, it was observed that the top node of (4) and (8) are connected, but that the bottom ‘node or pole’ of (4) and (8) are not.” While an appropriate observation, Applicants’ Specification clearly intends a meaning of “parallel” that embraces the setup shown in Figs. 1 and 2. As stated in ¶0018, use of the term “parallel” to describe the arrangement is intended as an analogy. The word “parallel” is used in effort to distinguish series or sequential type setups for other printhead manometer systems. This last point is taken directly from the last sentence of the referenced paragraph.

In any case, Applicants maintain that the “parallel” circuit analogy holds.¹ In an electrical system, one example of items connected in parallel is presented when two lines are physically connected at one end to a common node, and the opposite ends of the lines are connected to “ground” (whether they are connected at a node or not). An illustration of such a situation is provided for the Examiner’s convenience below:



¹ Even if it did not, it is within Applicants’ rights to modify the definition in such a way that the figure informs the term since an Applicant may serve as his own lexicographer.

An analogous situation is presented by Applicants in the variations of the invention shown in Figs. 1 and 2. In the figures, one end of each of lines (4) and (8) is connected at to a positive pressure source at a node, and the opposite ends of lines (4) and (8) are both in communication with (and hence, connected to) a common lower pressure environment (atmosphere). Consequently, the fluidic circuit shown in Figs. 1 and 2 is identical to the parallel-type electrical circuit illustrated above. The only difference is the substitution of higher and lower pressure conditions for the “+” and “-” or “ground” electrical poles.

In contrast, an electrical or fluidic system with elements in series would be represented as:



with elements A and B in line with another - sequentially or in turn. Indeed the situation presented in Fig. 4 of Nagoshi is analogous to the series circuit above where monometer 2 is substituted for element “A” and recording head 4 for element “B”.

All this being said, since the use of the “parallel” claim terminology presents difficulty for the Examiner, the claims (claims 1, 10, 30 and 31) have been amended to remove the language in order that the intended meaning of the original terminology be expressed in the clearest possible terms. Regarding the Specification, Applicants request that the Examiner reconsider the objection in view of the comments above.

Claim Rejections

Notwithstanding the remarks provided by Applicant in the previous Amendment (which Applicants maintain), the following additional remarks are offered in distinguishing the claims over U.S. Patent No. 4,772,900 to Nagoshi and U.S. Patent No. 6,325,354 to Hoen.

35 U.S.C. §102 rejection of claims 1-5, 8 and 10-12

Significant structural differences exist between the subject matter disclosed in Nagoshi reference and the invention(s) set forth in the referenced claims. The Nagoshi system has its “manometer” and recording head connected in series as stated above.

In contrast, the claims now specifically recite the structural requirements of a “parallel” type system of connection as previously intended. The claims now undeniably require an arrangement where each of the manometer and nozzle/printhead are individually (separately from one another) connected to the fluid supply or to a common line leading to the fluid supply source. Nagoshi instead shows a situation where its “manometer” and printhead are connected to the ink cartridge

together (i.e. no in an individual manner). Nether does Nagoshi present a situation where lines from both the "manometer" are connected to another common line.

For these reason alone, the claims are believed to define over the reference. However, should the Examiner continue to see the situation otherwise his assistance is requested. Applicants have endeavored to craft positive claim limitations in order to define over Nagoshi. If the subject claims are not held to define over Nagoshi, then Applicant may choose to pursue the use of the negative limitations in describing their connection configuration in terms of "non-series" connectivity. Support for such an approach is clearly provided in ¶0018. If the claims are not presently allowable, comment from the Examiner regarding the use of such alternate terminology would be appreciated – particularly by extending Applicant the courtesy of a call to the undersigned.

35 U.S.C. §102 rejection of claims 32-40

Claim 32 has been amended in a manner the Examiner agreed in an interview dated February 25, 2003 that would define over Hoen, *et al.* A summary of the interview and the reason why the amendment was not previously entered is attached hereto for the Examiner's convenience of reference. In any case, since the amendment must now be entered in connection with this Amendment, allowance of claim 32 and the remainder of the claims (33-40) incorporating its limitations is hereby requested.

Conclusion

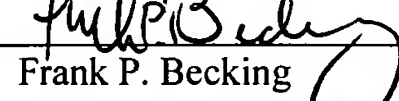
Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078, order number 10004452-1.

Respectfully submitted,

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Date: 1/8/04

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